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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,747	03/27/2006	Judd Berman	IPT-075	4895
51414 7590 07/20/2007 GOODWIN PROCTER LLP PATENT ADMINISTRATOR EXCHANGE PLACE BOSTON, MA 02109-2881				
			EXAMINER JARRELL, NOBLE E	
			ART UNIT 1624	PAPER NUMBER
			MAIL DATE 07/20/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/537,747	BERMAN ET AL.	
	Examiner	Art Unit	
	Noble Jarrell	1609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-49 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Claims 1-49 are pending in the current application.
2. This is a National Stage of PCT/US03/38706, filed December 5, 2003, which claims priority to 60/431406, filed December 6, 2002.

### *Election/Restrictions*

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, Claims 1-2, 5-6, 13, 14, 17, 21-42, 49 drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are benzofuran and pyrido[2,3-e]1,4]diazepine, respectively.

Group II, Claims 1-4, 13, 14, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are benzofuran and pyrido[2,3-d]pyrimidine, respectively.

Group III, Claims 1-2, 7-8, 13, 14, 18, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are benzo[b]thiophene and pyridine, respectively.

Group IV, Claims 1-2, 5-6, 13, 14, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are benzothiophene and pyrido[2,3-e]1,4]diazepine, respectively.

Group V, Claims 1-2, 7-8, 13, 14, 16, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are benzoimidazole and pyridine, respectively.

Group VI, Claims 1-2, 5-6, 11, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are 1,2-dihydroacenaphthylene and pyrido[2,3-e]1,4]diazepine, respectively.

Group VII, Claims 1-2, 5-6, 9, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are phenyl or anthracene and pyrido[2,3-e]1,4]diazepine, respectively.

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Group VIII, Claims 1-4, 9, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are phenyl or naphthalene and pyrido[2,3-d]pyrimidine, respectively.

Group IX, Claims 1-2, 7-9, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are phenyl and pyridine, respectively.

Group X, Claims 1-2, 5-6, 10, 14, 16, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are quinoline and pyrido[2,3-e]1,4]diazepine, respectively.

Group XI, Claims 1-2, 5-6, 13, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are indene and pyrido[2,3-e]1,4]diazepine, respectively.

Group XII, Claims 1-4, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are indene and pyrido[2,3-d]pyrimidine, respectively.

Group XIII, Claims 1-2, 5-6, 10, 14, 15, 17, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are 2,3-dihydrobenzo[b][1,4]dioxine and pyrido[2,3-e]1,4]diazepine, respectively.

Group XIV, Claims 1-2, 7-8, 12, 14, 15, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are thieno[2,3-b]thiophene and pyridine, respectively.

Group XV, Claims 1-2, 13, 16, 18-19, 21-42, 49, drawn to compounds and compositions of formula I wherein variables A and R<sup>2</sup> are benzoimidazole and 1,2-dihydrooxazolo[5,4-b]pyridine, respectively.

Group XVI, Claims 1-42, 49, drawn to compounds and compositions of formula I that are not encompassed by groups I-XV.

Groups XVII-XXXII, claims 43-47, drawn to a method (treating a bacterial illness) using compounds of groups I-XVI.

Groups XXXIII-XLVIII, claims 43-47, drawn to a method (disinfecting an inanimate surface) using compounds of groups I-XVI.

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The inventions listed as Groups I-# do not relate to a single general inventive concept under PCT Rule 13.1 because under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

(f) "Markush practice" The situation involving the so-called Markush practice wherein a single claim defines alternatives (chemical or non-chemical) is also governed by PCT Rule 13.2. In this special situation, the requirement of a technical interrelationship and the same or corresponding special technical features as defined in PCT Rule 13.2, shall be considered to be met when the alternatives are of a similar nature.

(i) When the Markush grouping is for alternatives of chemical compounds, they shall be regarded as being of a similar nature where the following criteria are fulfilled:

(A) All alternatives have a common property or activity; and

(B) (1) A common structure is present, i.e., a significant structural element is shared by all of the alternatives; or

(B) (2) In cases where the common structure cannot be the unifying criteria, all alternatives belong to a recognized class of chemical compounds in the art to which the invention pertains.

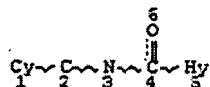
In paragraph (f)(i)(B)(1), above, the words "significant structural element is shared by all of the alternatives" refer to cases where the compounds share a common chemical structure which occupies a large portion of their structures, or in case the compounds have in common only a small portion of their structures, the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art, and the common structure is essential to the common property or activity. The different variables A, L, and R<sup>2</sup> result in so many permutations giving both heterocyclic and non-hetero rings as well as different linkers between the amide and R<sub>2</sub>, resulting in compounds that have achieved a different

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status in the art, and thus are drawn to an improper Markush group on the grounds of lack of a common nucleus. Thus lack of unity is apparent.

Preliminary search of the different cores gave numerous iterations, see below:

=> d que sta 16  
L6 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS E1 N AT 5

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE  
L6 22 SEA FILE=REGISTRY SSS SAM L6

0.5% PROCESSED 2000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

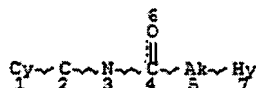
22 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 8353521 TO 8427599  
PROJECTED ANSWERS: 88223 TO 96369

The search above shows a core where variable L is a bond.

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=> d que sta 18  
L7 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1 N AT 7

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

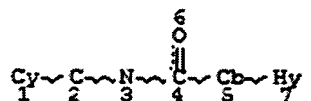
STEREO ATTRIBUTES: NONE  
L8 16 SEA FILE=REGISTRY SSS SAM L7

0.5% PROCESSED 2000 ITERATIONS 16 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 8363521 TO 8427599  
PROJECTED ANSWERS: 59565 TO 66293

The search above shows a core where variable L is an alkyl chain.

=> d que sta 110  
L9 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1 N AT 7

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
L10 2 SEA FILE=REGISTRY SSS SAM L9

0.5% PROCESSED 2000 ITERATIONS 2 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 8363521 TO 8427599  
PROJECTED ANSWERS: 7162 TO 9618

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The search above shows a core where variable L is a carbocyclic group.

Thus it is clear that applicant's compound core is not applicant's contribution over the prior art and the commonly shared structure does not constitute a structurally distinctive portion in view of the existing prior art. Thus there is a lack of unity.

A prior art reference anticipating the claims with respect to one group would not render obvious the same claims with respect to another group. Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103 (a) of the other invention.

4. Inventions I-XVI and XVII-XLVIII are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the compounds can be used as CCR3 ligand modulators.

5. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

6. Inventions XVII-XXXII and XXXIII-XLVIII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions are used for different purposes. Groups XVII-XXXII are used for treating bacterial illnesses and groups XXXIII-XLVIII are used for disinfecting surfaces. These methods require different search scopes.



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7. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

8. Applicant is advised that the reply to this requirement to be complete must include the invention to be examined. Applicant is advised that in addition to the election requirement a reply must include an identification all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election. If claims are added after the election, applicant must indicate which are readable upon the elected invention. The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

10. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species, even though this requirement is traversed. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic

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claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

11. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Conclusions***

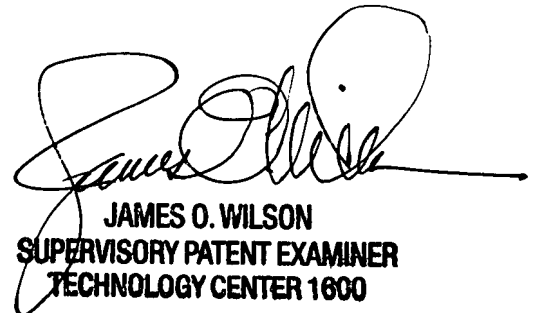
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noble Jarrell whose telephone number is 571 (272) 9077. The examiner can normally be reached on Mon-Fri 7:30 A.M.-6:00 P.M EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on (571) 272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NJ



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